

ABSTRACT OF THE DISCLOSURE

A first film is formed on a semiconductor substrate, the first film being made of material having a different etching resistance from silicon carbide. A second film of hydrogenated silicon carbide is formed on the first film. A resist film with an opening is formed on the second film. By using the resist mask as an etching mask, the second film is dry-etched by using mixture gas of fluorocarbon gas added with at least one of SF_6 and NF_3 . The first film is etched by using the second film as a mask. A semiconductor device manufacture method is provided which utilizes a process capable of easily removing an etching stopper film or hard mask made of SiC.

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